AMENDMENTS

In The Claims

Claim 1. (currently amended) An electrostatic discharge (ESD) protection device, comprising:

an ~~ESD clamp circuit~~ ESD protection circuit, comprising:

at least a diode connected in series between a first voltage and a pad; and

at least an ESD component connected in series between a second voltage and a pad, wherein each of the at least an ESD component comprises a deep N-well region formed in a P-type substrate, a triple P-well formed in the deep N-well region, and a highly doped N-type (N+) region and a highly doped P-type (P+) region formed in the triple P-well region.

Claim 2. (original) The ESD protection device of claim 1, wherein when a number of the ESD component is one, the N+ region of the ESD component is connected to the pad, and the P+ region of the ESD component is connected to the second voltage.

Claim 3. (original) The ESD protection device of claim 1, wherein when a number of the ESD component is two including a 1st ESD component and a 2nd ESD component, the N+ region of a 1st ESD component is connected to the pad, the P+ region of the 2nd ESD component is connected to the second voltage, and the P+ region of the 1st ESD component is connected to the N+ region of the 2nd ESD component.

Claim 4. (original) The ESD protection device of claim 1, wherein when a number of the ESD component is S including a 1st ESD component to a Sth ESD component, the N+ region

of the 1st ESD component is connected to the pad, the P+ region of the Sth ESD component is connected to the second voltage, and the P+ region of the Tth ESD component is connected to the N+ region of the (T+1)th ESD component, wherein S is a positive integer and T is a positive integer from 1 to S-1.

Claim 5. (original) The ESD protection device of claim 1, wherein each of the at least a diode comprises a N-well region formed in a P-type substrate, and a N+ region and a P+ region formed in the N-well region.

Claim 6. (original) The ESD protection device of claim 1, wherein when a number of the diode is one, the N+ region of the diode is connected to the first voltage, and the P+ region of the diode is connected to the pad.

Claim 7. (original) The ESD protection device of claim 1, wherein when a number of the diode is two including a first diode and a second diode, the N+ region of a first diode is connected to the first voltage, the P+ region of the second diode is connected to the pad, and the P+ region of the first diode is connected to the N+ region of the second diode.

Claim 8. (original) The ESD protection device of claim 1, wherein when a number of the diode is S including a 1st diode to a Sth diode, the N+ region of the 1st diode is connected to the first voltage, the P+ region of the Sth diode is connected to the pad, and the P+ region of the Tth diode is connected to the N+ region of the (T+1)th diode, wherein S is a positive integer and T is a positive integer from 1 to S-1.

Claim 9. (currently amended) The of claim 1, wherein the ESD protection ~~circuit~~ device further comprises another ~~ESD clamp circuit~~ ESD protection circuit comprising:

a PMOS transistor; and

an NMOS transistor, wherein a gate of the PMOS transistor and a gate of the NMOS transistor are connected to the pad, a source of the PMOS transistor is connected to a drain of the NMOS transistor, a drain of the PMOS transistor is connected to the first voltage, and a source of the NMOS transistor is connected to the second voltage.

Claim 10. (original) The ESD protection device of claim 1, wherein the ESD protection device is a radio frequency (RF) ESD protection device.

Claim 11. (currently amended) An electrostatic discharge (ESD) protection device, comprising:

~~an ESD clamp circuit~~ ESD protection circuit, comprising:

at least a first ESD component connected in series between a first voltage and a pad; and

at least a second ESD component connected in series between a second voltage and a pad, wherein each of the at least a first ESD component or the at least a first ESD component comprises a deep N-well region formed in a P-type substrate, a triple P-well formed in the deep N-well region, and a highly doped N-type (N+) region and a highly doped P-type (P+) region formed in the triple P-well region.

Claim 12. (original) The ESD protection device of claim 11, wherein when a number of the first ESD component is one, the N+ region of the first ESD component is connected to the pad, and the P+ region of the first ESD component is connected to the second voltage.

Claim 13. (original) The ESD protection device of claim 11, wherein when a number of the first ESD component is two including a 1st first ESD component and a 2nd first ESD component, the N+ region of a 1st first ESD component is connected to the pad, the P+ region of the 2nd first ESD component is connected to the second voltage, and the P+ region of the 1st first ESD component is connected to the N+ region of the 2nd first ESD component.

Claim 14. (original) The ESD protection device of claim 11, wherein when a number of the first ESD component is S including a 1st first ESD component to a S^{th} first ESD component, the N+ region of the 1st first ESD component is connected to the pad, the P+ region of the S^{th} first ESD component is connected to the second voltage, and the P+ region of the T^{th} first ESD component is connected to the N+ region of the $(T+1)^{th}$ first ESD component, wherein S is a positive integer and T is a positive integer from 1 to S-1.

Claim 15. (original) The ESD protection device of claim 11, wherein when a number of the second ESD component is one, the N+ region of the second ESD component is connected to the first voltage, and the P+ region of the second ESD component is connected to the pad.

Claim 16. (original) The ESD protection device of claim 11, wherein when a number of the second ESD component is two including a 1st second ESD component and a 2nd second ESD component, the N+ region of a 1st second ESD component is connected to the first voltage,

the P+ region of the 2nd second ESD component is connected to the pad, and the P+ region of the 1st second ESD component is connected to the N+ region of the 2nd second ESD component.

Claim 17. (original) The ESD protection device of claim 11, wherein when a number of the second ESD component is S including a 1st second ESD component to a Sth second ESD component, the N+ region of the 1st second ESD component is connected to the first voltage, the P+ region of the Sth second ESD component is connected to the pad, and the P+ region of the Tth second ESD component is connected to the N+ region of the (T+1)th second ESD component, wherein S is a positive integer and T is a positive integer from 1 to S-1.

Claim 18. (original) The ESD protection device of claim 11, wherein the ESD protection device is a radio frequency (RF) ESD protection device.

Claim 19. (currently amended) The ESD protection device of claim 11, wherein the ESD protection ~~circuit~~ device further comprises another ~~ESD clamp circuit~~ ESD protection circuit comprising:

a PMOS transistor; and

an NMOS transistor, wherein a gate of the PMOS transistor and a gate of the NMOS transistor are connected to the pad, a source of the PMOS transistor is connected to a drain of the NMOS transistor, a drain of the PMOS transistor is connected to the first voltage, and a source of the NMOS transistor is connected to the second voltage.